FOREIGN AGRICULTURE

Agricultural Policy in Pakistan

ERS-FOREIGN-16
October 1961

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Pakistan completed the first year of its Second 5-Year Plan on July 1, 1961. The principal agricultural goals are self-sufficiency in food grain production, and maintenance of the present export level of the nation's chief foreign exchange earners: jute and jute manufactures, cotton and cotton manufactures, wool, and tea. Increased output is to be obtained by bringing new land into production, reclaiming land affected by waterlogging and salinity, and by increasing yields per acre.

Pakistan was once a net exporter of food grains, but stationary yields per acre coupled with a population increase of 23 percent from 1951 to 1961 have changed the nation to a net importer of food grains.

Caught between these pressures of low yields and rapidly increasing population, the present Government is attempting to change the traditional structure of Pakistan's agriculture by: (1) removing Government controls over the production and marketing of basic commodities; (2) granting farmers security of tenure, and defining their land ownership rights; (3) supplying more irrigation water to existing farms in West Pakistan and extending irrigation and multiple cropping in East Pakistan; (4) promoting industrialization and diversification of the nation's export trade.

Agricultural Development Corporations

To centralize responsibility for agricultural development and replace the several organizations now operating in this field, two Agricultural Development Corporations are being established, one in each province. The Corporations will have broad discretionary powers to manufacture, purchase, and distribute production supplies needed by farmers, although much of the staff will be drawn from present Government agencies and be financed by the national Government. At first, these services, along with Extension Services will operate in carefully selected pilot project areas.

The formation of these corporations was the chief recommendation of a recently submitted report of the Food and Agriculture Commission. The Commission was established by the national Government in July 1959 to study the problems of Pakistani agriculture and to make recommendations for their solution.

Commodity Policies

Food shortages have been chronic in Pakistan. Government policy toward particular commodities may change from year to year especially if the particular crop, notably wheat or rice, is in long or short supply. The present Government, by maintaining reserve stocks of about 500,000 tons of wheat in West Pakistan and about 250,000 tons of rice in East Pakistan, has been able to assure a continuous grain supply at reasonable prices for the first time in many years.

Wheat

Since World War II, the Government has controlled prices, stocks, and distribution of wheat in various ways with varying degrees of success. The most common and most successful method has been the purchasing of the marketable surpluses which were then sold in the deficit areas. In an attempt to provide more incentive to producers, all restrictions on the purchase, sale, and shipment of wheat were eliminated in April 1960 (the first time in 20 years). Within one month, short supplies plus ensuing speculation forced the Government to amend its new policy. The amended policy will be in effect for the 1961-62 crop year.

Present wheat policy sets floor and ceiling prices for grain. Market prices are permitted to fluctuate within this range. If they fall below 13.5 rupees per maund ($2.07 per bushel) farmers can sell their wheat to the Government at that price; if prices rise above 16 rupees per maund ($2.37 per bushel) the Government sells from its stocks of imported wheat at this price.

The 1961 wheat crop was reduced because of drought, hence it is still too early to know if this new wheat policy will be effective in calling forth greater production in Pakistan's largely subsistence economy.

The distribution of flour and "atta" (a coarse flour of 95 percent extraction rate) is regulated. This affects about 20 percent of total wheat consumption. The mill prices of flour throughout West Pakistan and the retail prices of flour in the cities are fixed by Government decree. The fixed mill prices indirectly control grain prices because the mills are the biggest buyers of wheat in the "open market". In addition, mills must (1) purchase grain from the Government or from

sources specified by it, (2) distribute flour in accordance with Government regulations, and (3) abide by a mixing regulation that requires millers to use 80 percent imported wheat and 20 percent domestic wheat in their operations.

Rice

East Pakistan: About 90 percent or 10 million tons of the nation's rice is grown in East Pakistan. However, the national Government must import from other countries about 400,000 tons a year to help satisfy domestic requirements of this province. Presently, the provincial Government will purchase rice at a fixed price if the market price falls below the stipulated support level. Market prices, however, have usually been higher than the fixed price.

West Pakistan: West Pakistan produces most of the nation's wheat. Of the one million tons of rice produced each year, the national Government purchases about 150,000 tons of coarse grain rice for sale in East Pakistan at fixed prices and about 100,000 tons of superior varieties for export.

The superior varieties are for export only. The Government was the only buyer and exporter of superior grain rice until the end of 1959, but in 1960 it turned this export trade over to private hands in the hope of increasing export earnings. Dissatisfied with this procedure, the Government in 1961 resumed its position as the only buyer and distributor of superior rice. However, if bids received by private exporters are satisfactory, the Government will permit them to purchase at their bid price and export for their own profit.

The Government is so eager to expand production and increase the quality of these superior varieties, that the necessary plant protection measures are applied to the entire area in which they are grown by Government personnel at no cost to the growers.

Jute

Jute and jute manufactures are the nation's chief foreign exchange earners, accounting for more than 50 percent of total exports in recent years. Government policy seeks to encourage exports and at the same time insure reasonable prices to growers. Prior to 1960, when all controls on production were removed, the Government used several methods to achieve this; among them were acreage control, minimum export prices, and guaranteed prices.

The planted area was controlled in accordance with expected world consumption of jute between 1941 and 1960 by means of a licensing system. This acreage control was established to maintain prices and shift more land into rice production during World War II. In a free market the decision by East Pakistani farmers to plant rice or jute is in large part a function of the relative prices of the two commodities in the preceding season. Because climatic and agronomic conditions over almost all the cultivated area in East Pakistan are favorable to both rice and jute culture, the licensing system succeeded in shifting more land into rice production.

The licensing system was ended in 1960. The high prices resulting from short supplies threatened to make paper products and substitute fibers more competitive with jute products. The increasing competition from production in India and Brazil was another reason for eliminating the system.

At the present time neither the national Government nor the Pakistani Jute Board trade in jute or set the prices paid to jute farmers. Measures to aid farmers are limited to the setting of a minimum export price for long jute fiber (actual prices have been above this price), and supplying farmers with subsidized fertilizers and improved jute varieties.

Sugar

Prices paid by mills to cane growers and retail prices of refined sugar are fixed by Government decree. Regardless of the sugar content of the cane, growers receive a fixed price per ton of cane. The Government purchases the entire domestic output of refined sugar and is the only sugar importer, but to conserve foreign exchange, no sugar was imported in 1959 and 1960. Lower domestic production in 1961 made it necessary to import 50,000 tons, of which 25,000 tons were by the private trade. Control over prices and distribution affects about 15 percent of total production. The other 85 percent is unrefined sugar consumed on the farm or marketed locally, and not controlled by the Government.

Refined sugar is the only food item rationed in Pakistan. Each person can purchase 2.5 pounds each month.

Policies for Development of Land and Water Resources

Land and water policies in East and West Pakistan reflect the vast agricultural differences between the two provinces. West Pakistan has a semiarid climate and 65 percent of the cultivated acreage is irrigated

by the Indus River System. Thus, the major goal of land and water policy is maintaining adequate water supplies, and more recently reclamation of saline land. However, in East Pakistan, which is largely a deltaic flood plain, (rainfall ranges between 50 and 225 inches) gravity irrigation is not commonly practiced. Here, Government projects seek to control the perennial floods and introduce irrigation and multiple cropping to farmers who are largely unfamiliar with these techniques.

Increasing and Improving the Cultivated Area

East Pakistan: Little new area can be brought under cultivation in East Pakistan, but there is a large potential for improving the area under cultivation. Although 5 million acres are now planted more than once each year, 13 million additional acres could be multiple cropped if proper flood control, irrigation and drainage facilities were installed. Presently, only 600,000 acres of the 22 million under cultivation are irrigated under a gravity system.

The province's first irrigation project, the Ganges-Kobadak project, will permit multiple cropping and year-round irrigation of about 2 million acres. The channel of the Kobadak River will be improved, and water from the Ganges River will be used to develop areas in the Kushtia, Jessore, and Khulna districts. Work will begin in Jessore and Khulna after completion of the Kushtia unit. Nearly 200,000 acres of unirrigated land will be irrigated by the end of the Second 5-Year Plan in June 1965.

New and remodeled coastal embankments will protect 1.6 million acres of coastal area from salt water inundation. Most of this area had been developed and protected by the landlords who left Pakistan at the time of partition in 1947. These embankments have been poorly maintained since that time and large losses of rice land have resulted. About 200,000 acres of coast land will be protected by June 1965.

West Pakistan: Land totally dependent upon irrigation now amounts to 24 million acres, an increase of 1.3 million since 1955 and 1.8 million since 1947. Increasing the cultivated area depends upon the construction of diversion and storage dams, and the success of projects reclaiming land from waterlogging and salinity. The goal of the 5-Year Plan is to bring 2.2 million acres of new land into production, assure regular water supplies to 1.3 million acres of land that now receive water at flood time only, and reclaim from salinity and waterlogging 800,000 acres. It now seems that only about half of each of these goals will be achieved by 1965.

Three diversion dams, scheduled for completion during the Second 5-Year Plan, will eventually utilize the remainder of the water available for irrigation in West Pakistan during the period of low-water river flow from October to April. Almost all irrigation is accomplished by means of these diversion dams which, on the level plains of the Indus Valley, merely divert the river water into adjacent canals that carry the water to individual farms.

Virgin land to be irrigated by these three dams is estimated at 2.6 million acres. Another 4 million acres that receive water in the summer flood season only, will receive assured winter supplies. It is uncertain when these large areas will be in full production because of the time lag between dam construction and utilization of water by individual farmers. The main canals, minor canals and water-courses must be constructed and the new land leveled for a gravity irrigation system. Colonization procedures, the problems of settling people on new land, and the fact that virgin, desert soil requires several seasons of irrigation before the land comes into full production are other barriers to rapid increases in the cultivated area.

Further additions to the province's irrigated land must await construction of storage dams such as those to be constructed under the Indus Basin Development Plan. They will release during the October-April period water that now flows unused to the Arabian Sea during the monsoon (July-August) period. This unused portion is almost 40 percent of the average yearly flow of the Indus River system.

Reclamation from Salinity and Waterlogging

More than half of West Pakistan's irrigated land is affected in varying degrees by salinity and waterlogging. Per acre yields on these lands are lower than before World War II. Three million acres are out of production completely with losses now running from 50,000 to 100,000 acres each year.

Progress in reclamation has been slow; 150,000 acres were brought back into production between 1955 and 1960, but it is estimated that about 200,000 acres were lost during the same period.

Several reclamation projects in Pakistan are in the planning stage, but one, located in the Rechna Doab in the northeast corner of West Pakistan, is expected to begin full operation by June 1962. This reclamation work on more than one million acres seeks to create favorable drainage by lowering the water table, and also to increase irrigation water supplies.

In May 1961, the West Pakistan Water and Power Development Authority published the first comprehensive province-wide plan for land reclamation. If the work in the Rechna Doab is successful, and early indications are that it will be, it would serve as a pilot project for the implementation of this master plan for West Pakistan's 24 million irrigated acres. The province-wide plan will cost more than $1.2 billion over a 10-year period. Scheduled for construction are 7,500 miles of major drainage channels, 30,000 tubewells, and generation and transmission facilities for 600,000 kilowatts of electricity.

Indus Basin Development

The Indus Water Treaty of 1960 calls for a $1 billion program for the development of agriculture and hydroelectric power in the Indus River Basin. This river system supports about 40 million Pakistanis and 10 million Indians, almost 10 percent of the combined population of the two countries. The Treaty ended a 13-year dispute between India and Pakistan over the use of the Indus River waters.

The main purpose of the Treaty is to divide the waters of the Indus River and its five tributaries between the two countries. Those areas of Pakistan that presently receive irrigation water from the three eastern rivers of the Indus system will, upon completion of the Basin development, receive their irrigation water from the Indus River and the two western tributaries. The entire flow of the three eastern tributaries (20 percent of the yearly flow of the Indus System) will be released for use in India.

The main works to be constructed in Pakistan under the development plan are the following: (1) 400 miles of canals that will carry water from the western rivers to the areas in Pakistan formerly irrigated by the eastern rivers, (2) two storage dams, both near the northeastern border of Pakistan on the Jhelum and Indus Rivers, (combined storage capacity will be 9 million acre feet or 5 percent of the total flow of the rivers), (3) generation facilities for 900,000 kilowatts of electricity, (4) remodeling of present barrages and canals, (5) surface and subsurface drainage channels, (6) 2,500 tubewells to overcome salinity and waterlogging on 2.5 million acres.

Since the cost of such a huge project is beyond the resources of India and Pakistan, a consortium of countries interested in the financing of the 5-Year Plans of India and Pakistan signed an Indus Basin Development Fund Agreement at the time the Indus Treaty was signed.

These countries are: Australia, Canada, New Zealand, the United Kingdom, the United States, and West Germany. They agreed to contribute in the form of grants and loans most of the $1 billion that will be needed. The United States' contribution to the fund, the largest by far, will be $280 million in grants and loans and a grant of the equivalent of $235 million in rupees, acquired under Title I, P.L. 480 sales. The International Bank for Reconstruction and Development is administrator of the Development Fund. Construction is scheduled for completion by 1973.

The Second 5-Year Plan was published before the Indus Water Treaty was signed. Thus, expenditures called for in the Treaty are not included in the 5-Year Plan. The Pakistan Planning Commission is now revising the 5-Year Plan to include that share of construction provided for in the Indus Water Treaty which is to be completed by the end of the Plan period in 1965.

Land Reform

The Government, having inherited a multitude of land tenure and taxation systems at the time of independence in 1947, has been attempting to establish uniform legal relationships, suited to each province, between land and the men who cultivate that land, and to define the rights that ownership and tenancy confer.

East Pakistan: In East Pakistan, the East Bengal State Acquisition and Tenancy Act of 1951 is the basic law that governs land holdings. Under this law the Government became the owner of all land, eliminating the *zamindars* who legally were merely rent collectors, or intermediaries between the farmers and the State, but in practice had assumed the status of landlords.

The aim of the provincial Government is the creation of one class of occupants with specified rights. Although legally the Government is now the owner of all land, in practice, the farmers occupancy and cultivation rights are hereditable and transferable.

To foster a money economy, the Government has decreed that rents must now be paid in currency and not in the form of produce as was previously done under the *zamindar* system.

Recently the law was amended, setting an upper limit of 125 acres to the size of farms, (except tea and sugar plantations and large mechanized farms) and also a minimum of 3 acres below which holdings can not be fragmented. However, parcels now between 8 and 125 acres may not be subdivided below 8 acres in size. These limits apply even though the land of a farm is not contiguous, but spread over a wide area.

West Pakistan: In 1959, 6 months after the present Government assumed office, a program to reduce the size of large holdings was begun in West Pakistan. The main features of the program were: (1) that no one person could own more than 500 acres of irrigated, or more than 1,000 acres of unirrigated land; (2) uneconomically fragmented holdings were to be consolidated, and (3) tenants were to be granted security of tenure. An escape clause allowed a landlord to transfer up to 250 acres to each of his heirs prior to expropriation proceedings.

Although precise information is lacking, it appears that the Government has acquired the 2.3 million acres that were declared surplus in 1959. No ordinance or law has yet been passed to transfer this land to farmers. In addition, little progress has been made in the land consolidation program.

Land Taxation

The present system of land taxation was designed to facilitate revenue collection and not to promote the use and development of land. Only crop acreage is taxed. Under consideration is a Food and Agriculture Commission recommendation for fixed tax rates per acre based upon the agricultural value of the land, cropped or not.

To encourage expansion of acreage in West Pakistan, the provincial Government has granted a 3-year tax holiday to those who bring new land into production.

Water Taxation

One of the major requirements for higher yields per acre in West Pakistan is greater water applications per acre, but water allocations are based on covering the maximum acreage with the available water. Water rates are based on the acreage of crops grown and not the amount used. The original purpose of introducing irrigation to the semi-desert plains of West Pakistan was to colonize new areas, bring as much land under irrigation as possible and settle a large number of people on the land. The allocations were calculated to supply only the minimum needs of each farm unit, because of the lack of abundant water supplies.

The recommendation of the Food and Agriculture Commission that water be paid for on a volumetric basis has been accepted by the Government and this system will be in operation on a pilot project basis in the near future.

Fertilizer

The Government is the only importer and distributor of commercial fertilizer, selling it to farmers at 50 percent of cost. This is the only subsidy offered to farmers.

Consumption of fertilizer is still low. In 1958, Pakistan used slightly less than one pound of total plant nutrients per acre of arable land, compared to 1.3 pounds used by India and 246 pounds by Japan. Because increased fertilizer use is necessary to increase yields per acre and because farmers are reluctant to use commercial fertilizer extensively, the fertilizer subsidy will probably continue for some time to come.

Domestic production of plant nutrients was 10,000 metric tons of nitrogen and 1,000 tons of phosphoric oxide in 1958-59, about two-thirds of total nutrient consumption. Factories provided for in the Second 5-Year Plan, with plant capacity of 116,000 tons of nitrogen and 18,000 tons of phosphoric oxide, will probably be completed. However, it is doubtful if Pakistan will consume all the fertilizer these plants are capable of producing. Barriers to fertilizer distribution and use will limit consumption to about 50,000 tons of nitrogen, 6,000 tons of phosphoric oxide, and 3,000 tons of potash in the final year of the Plan. All potash is imported.

The Government purchases and distributes all of the domestic production and through its Extension Service sells directly to farmers.

Trade Policies

State Trading

Although the present Government favors private trading, to maintain the prices of basic commodities at reasonable levels, only the Government imports wheat, rice, and sugar and distributes these commodities up to the retail level.

The Government loses money on its wheat transactions because of the differential between the fixed price to consumers and the higher price paid for imports and domestically procured wheat. Some profit is made on rice and sugar sales.

Export Promotion

In an attempt to increase and diversify exports, an Export Bonus Scheme was begun in January 1959. This program, by favoring the export of manufactured goods, especially goods other than cotton or jute, has altered the commodity composition of Pakistan's exports and has furthered the industrialization of the country.

Under this program exporters have been divided into three categories: (1) Exporters of manufactured goods (except cotton and jute goods). They receive import certificates valued at 40 percent of the foreign exchange earned from their exports. (2) Exporters of cotton and jute goods and the long-grain rice that is grown in West Pakistan are entitled to import

certificates valued at 20 percent of the foreign exchange earned. (3) Exporters of the agricultural products which traditionally have earned almost all of Pakistan's foreign exchange do not receive any import certificates. These products are raw jute, raw cotton, raw wool, tea, hides and skins.

Import certificates are freely bought and sold within the country and are used for importing more than 200 authorized commodities.

Trade Restrictions

There are no Government restrictions which curtail agricultural trade with the United States. Almost all agricultural imports are from the United States and are purchased under Title I of Public Law 480.

Public Law 480 Programs

A new Title I, Public Law 480 agreement, signed on October 14, 1961, will help Pakistan increase per capita grain consumption, enlarge its food reserves and promote economic development. Pakistan will purchase for rupees, over a four-year period, almost 5.6 million metric tons of wheat (20 percent of a U. S. wheat crop), 500,000 tons of feed grains, and many other commodities.

The market value of the program, including the U. S. share of ocean transportation costs, is $622 million. This is 44 percent greater than the value of all previous programs with Pakistan, and is the second largest program ever consummated under Public Law 480, second only to the $1.3 billion agreement with India, signed in May 1960.

Of the rupees received by the United States, 19 percent ($118 million) will be used to meet part of the United States contribution to the Indus Basin Development Fund, 70 percent ($435 million) will be granted or loaned to the Government of Pakistan for financing other economic development projects, 5 percent will be for loans to U. S. and Pakistani private business firms, and 6 percent reserved for U. S. uses.

Previous Agreements

Commodities worth $432.1 million had been sold to Pakistan under Title I by June 30, 1961. These commodities account for about 7 percent of the value of all United States Title I, P.L. 480 sales to all countries. The quantity and value of these commodities are:

Commodity	Quantity	Value
	1,000 metric tons	Million dollars
Wheat and flour	3,661	223.1
Rice	596	78.5
Cotton	42	35.0
Fats and oils	98	29.1
Tobacco	5	9.8
Dairy products	6	5.3
Total market value		380.8
Ocean transportation		51.3
Total		432.1

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Of the rupees acquired from the sales to Pakistan, the equivalent of $269 million were set aside for grants and loans for economic development and by June 30, 1961, $132.8 million had been allocated for specific development projects. Some examples are:

West Pakistan Water and Power Development Authority: The installation of tubewells and the construction of a power transmission system in the northeast part of West Pakistan will aid in the reclamation from salinity and waterlogging of more than 1 million acres of once productive land. About $7.0 million in rupee equivalent, 32 percent of the total project cost incurred by July 1961, was supplied by the United States.

Pakistan Industrial Finance Corporation: This corporation received $6.3 million in rupee equivalent by July 1960. It finances, through loans and the underwriting of securities, medium and large-scale privately owned industrial enterprises. It is one of the largest institutional sources of such financing in the private sector.

Karnaphuly Dam: Construction of a dam, power station, spillways, and other facilities on the Karnaphuly River will double power production in East Pakistan. Cost of the project will be $100 million. Of this total the United States, by June 1961, had contributed $40 million and the equivalent of $14 million in rupees that were obtained under Title I sales.

Greater Karachi Housing Program: When completed this housing project will have facilities for 150,000 refugee families that fled India at the time of partition in 1947. It includes both the Korangi Township and the North Karachi areas. About 35,000 homes and 30,000 sites are now completed. The home owner pays the total cost of $480 over a 20-year period; interest rates are between 3 and 4 percent. By June 1961 the U.S. contribution to this community from currencies accrued under Title I, P.L. 480 was $20 million in rupee equivalent.